Claims

1. Nucleic acid that codes for an androgen receptor, characterized in that it comprises

a. The nucleotide sequences that are shown in Seq ID NO 1 and/or 3,

b. a nucleotide sequence that corresponds to the sequence from a. within the scope of the degeneration of the genetic code, or

c. a nucleotide sequence that hybridizes with the sequences from a. and/or b. under stringent conditions.

2. Nucleic acid according to claim 1, wherein it comprises a protein-coding section of the nucleic acid sequences that are shown in Seq ID NO 1 and/or 3.

3. Nucleic acid, wherein it codes for a polypeptide with the amino acid sequence that is shown in Seq ID NO 2 and/or 4.

4. Polypeptide, wherein it is coded by a nucleic acid according to one of claims 1-3.

5. Polypeptide, wherein it comprises the amino acid sequence that is shown in Seq ID NO 2 or 4.

6. Peptide, wherein it comprises the sequence that is shown in Seq. ID NO 5.

7. Peptide, wherein it comprises the amino acid sequence that is shown in Seq. ID NO 6.

8. Use of a polypeptide according to claim 4 or 5 or a peptide according to claim 6 and/or 7 for the production of antibodies.

9. Antibodies against a polypeptide according to one of claims 4 or 5 or against a peptide according to claim 6 or 7.

10. Use of an antibody according to claim 9 for detection of a polypeptide according to claim 4 or 5 in the tumor tissue.

11. Use of a probe with nucleic acid sequences that are complementary to the nucleic acid sequences, that code for the peptides according to claims 6 or 7, for the production of a reagent for detecting the presence of mRNA in tumor cells according to one of claims 1 to 3.

12. Vector, wherein it contains at least one copy of a nucleic acid according to one of claims 1-3.

13. Cell, wherein it is transfixed with a nucleic acid according to one of claims 1-3 or with a vector according to claim 12.

14. Cell according to claim 13, wherein it is selected from the group that consists of PC-3 cells, LNCaP cells, CV-1 cells, CV-1 cells and Dunning cells.

15. Use of a cell according to claim 13 or 14 for the expression of nucleic acid according to one of claims 1-3.

16. Use of

a. A nucleic acid according to one of claims 1 to 3,

b. a polypeptide according to claim 4 or 5,

c. a peptide with the amino acid sequence that is shown in Seq ID NO 5 or

d. a cell according to claim 13 or 14

to identify effectors of a polypeptide according to claim 4 or 5.

17. Test system for detecting effectors of the polypeptides according to the invention, whereby

a. A reporter gene is expressed in a cell according to claim 13 or 14, and

b. this cell, if it contains only a little or no polypeptide according to claim 4 or 5, is transfixed in addition with a vector according to claim 12,

c. the cells are cultivated in the presence or absence of the test substances and

d. the alteration of the expression of the reporter gene is measured.

18. Test system for detecting test substances with antiandrogenic activity, whereby

a. A reporter gene is expressed in a cell according to claim 13 or 14, and

b. this cell, if it contains only a little or no polypeptide according to claim 4, is transfixed in addition with a vector according to claim 12,

c. the cell is cultivated in the presence or absence of test substances with the simultaneous presence of an androgen, and

d. the alteration of the expression of the reporter gene is measured.

19. Process for the preparation of pharmaceutically active substances, whereby

a. Substances are brought into contact with a test system according to claim 17 or 18,

b. the action of the substances on the test system is measured in comparison to the controls, and

c. a substance is identified that shows a modulation of the expression of the heterologous polypeptide in step b.

20. Process for the preparation of a pharmaceutical agent, whereby

a. Substances are brought into contact with a test system according to claim 17 or 18,

b. the action of the substances on the test system in comparison to controls is measured,

c. a substance that shows a modulation of the expression of the heterologous polypeptide in step b. is identified,

d. and the substance that is identified in step c. is mixed with formulation substances that are commonly used in pharmaceutics.

21. Use of a substance that is prepared according to claim 19 or a pharmaceutical agent that is prepared according to claim 20 for the production of a medication for the treatment of androgen-dependent diseases.

22. Use of a substance that is prepared according to claim 19 or a pharmaceutical agent that is prepared according to claim 20 for the production of a medication for male birth control.

23. Use of a nucleic acid according to one of claims 1-3 in the gene therapy of androgen-dependent diseases.